



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

JAN 25 2008

Matthew J. Driscoll
Mayor
City of Syracuse
203 City Hall
Syracuse, New York 13202-1473

Dear Mayor Driscoll:

This is to inform you that the Environmental Protection Agency (EPA) has determined that the proposed rehabilitation of the Westcott Reservoir in the City of Syracuse, Onondaga County, New York is categorically excluded (CATEX) from substantive environmental review requirements, pursuant to 40 CFR Part 6. The project is being partially funded through a federal Special Appropriation Act grant (Grant No. XP98286804-0).

Based on our review of the supporting documentation, EPA approves the request for the CATEX. Please be reminded that EPA may revoke this CATEX if any of the following conditions occur:

- changes in the proposed action render it ineligible for exclusion;
- new evidence indicates that serious local or environmental issues exist; or
- federal, state, or local laws would be violated.

Should you have any questions regarding this decision, please address them to John Filippelli, Chief, Strategic Planning and Multi-Media Programs Branch, at the above address. Please note this CATEX will be available on EPA Region 2's website at <http://www.epa.gov/region02/spmm/r2nepa.htm>.

Sincerely,

A handwritten signature in blue ink, reading "Alan J. Steinberg", is positioned above the typed name.

Alan J. Steinberg
Regional Administrator

Enclosure

cc: Michael J. Ryan, P.E., Commissioner of Water (w/enclosure)

ENCLOSURE

**Westcott Reservoir Rehabilitation
City of Syracuse
Onondaga County, New York
Special Appropriation Grant Project No. XP98286804-0**

Background

The City of Syracuse Water Department (SWD) provides retail water service to the entire City of Syracuse. The SWD also supplies water to portions of the towns of DeWitt, Onondaga, Geddes, Camillus, Skaneateles, Salina, and the villages of Jordan and Elbridge. The City of Syracuse water system was designed to work with two major reservoirs, the Westcott Reservoir and the Woodland Reservoir. The Westcott Reservoir is a shotcrete-lined reservoir constructed in the 1930's with major repairs done in 1973. Because of a lack of structural integrity (i.e., significant leaking) the Westcott Reservoir went out of service in 1999. The purpose of this project is to restore the storage function that the SWD lost when the Westcott Reservoir went out of service.

Proposed Action

The proposed project consists of the construction of two 35 million gallon circular covered concrete tanks. These tanks will be located at the floor elevation of the existing reservoir. Minimal new infrastructure will be required since the new tanks will be almost entirely supported by the infrastructure that supported the existing reservoir. The hydraulic operation of the new tanks will be similar to the previous open reservoir. The total project cost is estimated to be \$40,463,000. The EPA Water Infrastructure Improvement Grant is \$2,892,800.

Other Alternatives Considered

The following alternatives were evaluated:

Alternative 1: No action – This was rejected because it will not provide for the City of Syracuse's water supply system with sufficient storage capacity in the event of an emergency water delivery condition. Essentially, the Westcott Reservoir would continue to be an unusable, uncovered reservoir.

Alternative 2: Open reservoir rehabilitation – The Westcott Reservoir Inspection/Evaluation Report done by Blasland, Bouck & Lee, Inc. & Greeley and Hansen, LLC. December, 2002, evaluated this alternative in detail. The Report's conclusions are: the Reservoir's rehabilitation would result in uncertain performance longevity, higher cost, less operational flexibility, less security and less compatibility with regulations when compared to the proposed alternative.

Alternative 3: Westcott Reservoir to be placed back into service "as is" – This was rejected due to the Reservoir's dangerous present condition. Additionally, this alternative would result in violation of the federal and state

promulgated Long Term Enhanced Surface Water Treatment Rules (40 CFR Parts 9, 141, and 142 [WH-FRL-7124-2] RIN 2040-AD18).

Eligibility for Granting a Categorical Exclusion

The project meets the general Categorical Exclusion (CATEX) eligibility criteria found in 40 CFR 6.107(d)(1). The regulations allow CATEXs for activities involving “actions which are solely directed toward ... functional replacement of equipment, or ... construction of new ancillary facilities adjacent or appurtenant to existing facilities.”

Additionally, the available information on the proposed action indicates that the specific criteria for not granting a CATEX, found in 40 CFR 6.505(c)(1), are not present. Specifically, the project will not result in a new or relocated discharge to surface or ground waters; will not increase the amount of pollutants discharged to receiving waters; nor will it provide capacity to serve a population significantly greater than the existing population. Furthermore, there will be no significant adverse effects on cultural resources, endangered or threatened species, environmentally sensitive areas, or other environmentally important natural resource areas.

Conclusion

The proposed action conforms to the category of actions eligible for exclusion under 40 CFR 6.107(d)(1). Accordingly, EPA approves this request for a CATEX from detailed environmental review pursuant to our procedures for implementing the National Environmental Policy Act.

General Conformity Determination

Westcott Reservoir Rehabilitation Project

City of Syracuse, Onondaga County, NY

Prepared by:
U.S. Environmental Protection Agency Region 2
290 Broadway
New York, NY 10007-1866

1. Introduction

The proposed project consists of the construction of two 35 million gallon circular covered concrete tanks. These tanks will be located at the floor elevation of the existing reservoir. Minimal new infrastructure will be required since the new tanks will be almost entirely supported by the existing infrastructure that supported the existing reservoir. Hydraulic operations by the new tanks will be similar to the previous open reservoir. The total project cost is estimated to be \$40,463,000. The EPA Water Infrastructure Improvement Grant is \$2,892,800.

The Westcott Reservoir Rehabilitation Project is located in Onondaga County, NY, part of the Onondaga County carbon monoxide (CO) maintenance area. Because the project is funded through a Federal grant by the Environmental Protection Agency (EPA) the project is subject to the general conformity regulations (40 CFR 93 Subpart B). This report documents the general conformity applicability analysis.

2. Background

The Clean Air Act Amendments of 1990 (CAAA) established the concept of conformity as a way to ensure that Federal actions do not interfere with air quality goals set by a state in that state's state implementation plan (SIP). The conformity regulations were divided into two parts: transportation conformity, covering projects initiated with Federal Highway Administration or Federal Transit Administration funding or approval; and general conformity, covering all other Federal agencies.

Conformity to a SIP means that a project will not cause or contribute to violations, worsen existing violations, or delay timely attainment of the National Ambient Air Quality Standards (NAAQS). The NAAQS have been set for six "criteria pollutants": ozone (O₃), carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and particulate matter (both <10 microns [PM₁₀] and <2.5 microns [PM_{2.5}]). An area that violates one or more of the NAAQS may be designated as a nonattainment area by EPA. Areas that do not have violations but may contribute to nearby violations can also be designated as nonattainment areas.

States with nonattainment areas must develop state implementation plans (SIPs) to show how the areas will attain the NAAQS as expeditiously as practicable. An area that was previously in nonattainment and has been re-designated to attainment by EPA becomes a "maintenance area." States must develop SIPs for maintenance areas to show how they will maintain the applicable NAAQS for a period of 20 years.

General conformity applies only to Federal actions in nonattainment and maintenance areas. The Westcott Reservoir Rehabilitation Project in Onondaga County, NY, lies within the Onondaga County CO maintenance area. The area was designated by EPA as nonattainment for the CO standard effective January 8, 1992. On November 12, 1992, New York submitted a redesignation request and maintenance plan for the Onondaga County CO nonattainment area. EPA redesignated the area to attainment with a maintenance plan for CO effective September 29, 1993 (58 FR 50851).

3. General Conformity Applicability and Analysis

Because the Westcott Reservoir Rehabilitation Project is subject to general conformity, EPA conducted an analysis of pollutant emissions from the project. Carbon monoxide is a directly-emitted pollutant with no identified precursors. Therefore, we only had to determine the amount of directly-emitted CO for the project.

The general conformity rule identifies “deminimis levels” (40 CFR 93.153(b)(1)), or threshold values of emissions below which projects are presumed to conform without further mitigation of emissions or other action on the part of the project sponsor. These deminimis levels are based on annual pollutant emissions; therefore, we determined emissions by year for this project.

The deminimis level for the Onondaga County CO maintenance area is 100 tons per year of CO. In the analysis we considered only the emissions from the construction of the project. Emissions from the operation of the project are considered indirect emissions (40 CFR 93.152). We have deemed that EPA does not have continuing program responsibility for the indirect emissions and therefore have not included those emissions in the analysis.

Emission estimates were based on emission factors taken from a number of sources and vehicle/equipment types and activity levels supplied by the project sponsor. Tables A1 through A4 in Appendix A detail the emission factors and the calculation of total project emissions.

4. Conclusion

Tables 1, 2 and 3 below show the results of the general conformity applicability analysis. Emissions of CO in the Westcott Reservoir Rehabilitation Project’s construction years of 2008, 2009 and 2010 are below the applicable deminimis threshold values; therefore, the project is presumed to conform and no further action is necessary.

TABLE 1

2008 CONSTRUCTION EMISSIONS SUMMARY FOR GENERAL CONFORMITY	
POLLUTANT	CO
OFF-ROAD CONSTRUCTION EMISSIONS (tons/year)	2.170
ON-ROAD CONSTRUCTION EMISSIONS (tons/year)	3.227
TOTAL CONSTRUCTION EMISSIONS (tons/year)	5.397
GENERAL CONFORMITY THRESHOLD (tons/year)	100
PERCENTAGE OF THRESHOLD	5.40%

TABLE 2

2009 CONSTRUCTION EMISSIONS SUMMARY FOR GENERAL CONFORMITY	
POLLUTANT	CO
OFF-ROAD CONSTRUCTION EMISSIONS (tons/year)	0.609
ON-ROAD CONSTRUCTION EMISSIONS (tons/year)	2.443
TOTAL CONSTRUCTION EMISSIONS (tons/year)	3.052
GENERAL CONFORMITY THRESHOLD (tons/year)	100
PERCENTAGE OF THRESHOLD	3.05%

TABLE 3

2010 CONSTRUCTION EMISSIONS SUMMARY FOR GENERAL CONFORMITY	
POLLUTANT	CO
OFF-ROAD CONSTRUCTION EMISSIONS (tons/year)	0.163
ON-ROAD CONSTRUCTION EMISSIONS (tons/year)	0.857
TOTAL CONSTRUCTION EMISSIONS (tons/year)	1.020
GENERAL CONFORMITY THRESHOLD (tons/year)	100
PERCENTAGE OF THRESHOLD	1.02%

Appendix A: Emission Factors and Emission Calculations

TABLE A1

CONSTRUCTION EQUIPMENT EMISSION FACTORS FOR CARBON MONOXIDE(g / hp-hr) ¹							
EQUIPMENT	FUEL TYPE	NONROAD Model Category	SCC ²	HP	2008	2009	2010
Compactor (soil)	Diesel	Plate Compactors	2270002009	100	3.491		
Compactor (stone/asphalt)	Diesel	Plate Compactors	2270002009	50	3.491		3.079
Paving equipment	Diesel	Paving equipment	2270002021	100			4.072
Drill rig	Diesel	Drill rig	2270002033	100	3.355		
Hydraulic excavator (s)	Diesel	Excavator	2270002036	100	3.897		
Hydraulic excavator (m)	Diesel	Excavator	2270002036	200	1.235	1.224	
Hydraulic excavator (l)	Diesel	Excavator	2270002036	400	1.814		
Crane (hydraulic) (500t)	Diesel	Cranes	2270002045	680		1.721	
Crane (hydraulic) (50t)	Diesel	Cranes	2270002045	370	1.545	1.453	
Concrete crusher	Diesel	Crushing/proc. Equipment	2270002054	510	1.711		
Wheel loader (l)	Diesel	Rubber tire loader	2270002060	800	2.657		
Wheel loader (m)	Diesel	Rubber tire loader	2270002060	200		1.348	1.310
Telehandler	Diesel	Tractors/loaders/backhoes	2270002066	100	7.908	7.766	7.627
Dozer (s)	Diesel	Crawler tractors/dozers	2270002069	80	3.947		3.895
Dozer (m)	Diesel	Crawler tractors/dozers	2270002069	150	1.520		
Dozer (l)	Diesel	Crawler tractors/dozers	2270002069	580	1.963		
Skid-Steer	Diesel	Skid steer loaders	2270002072	75			7.795
Articulated truck	Diesel	Off-highway truck	2270002051	325	1.522		
Concrete truck	Diesel	Other construction equipment	2270002081	100	4.352	4.231	4.120
Shot-crete pump trailer	Diesel	Pumps	2270006010	100		3.327	3.248
Concrete pump	Diesel	Pumps	2270006010	130	2.240		

Notes:

1. Emission factors determined using EPA's NONROAD2005 model, 2008 run year, 500ppm diesel sulfur content.
2. SCC is the Source Classification Code used in emission inventory development.

TABLE A2

ON-ROAD VEHICLE EMISSION FACTORS FOR CARBON MONOXIDE (g/mile) ¹							
EQUIPMENT	FUEL TYPE	GVWR	VEHICLE CLASS	LOCATION	2008	2009	2010
Passenger car	Gasoline	2500	LDGV	Off-site	17.42	16.55	15.55
Light Gas Truck	Gasoline	4000	LDGT2	Off-site	19.13	18.04	16.60
Light Diesel Truck	Diesel	4000-6000	LDDT12	Off-site	0.86	0.82	0.78
Truck-mounted pump	Diesel	26000	HDDV6	Off-site	1.10	0.97	0.87
Dump Truck	Diesel	30000	HDDV7	Off-site	1.31	1.16	1.06
Concrete Truck	Diesel	40000	HDDV8a	Off-site	2.56	2.30	2.06
Heavy Truck	Diesel	65000-72000	HDDV8b	Off-site	2.61	2.35	2.10

Notes:

1. Emission factors taken from *MOBILE6.2 Emission Factor Tables for Regional, Mesoscale, and CMAQ Project Emission Calculations - Part B: Onondaga County*, developed by the New York State Department of Transportation and available at:
<https://www.nysdot.gov/portal/page/portal/divisions/engineering/environmental-analysis/mobil6>.
 Vehicles assumed to travel at an average speed of 40mph on arterial roads.

TABLE A3

CONSTRUCTION EMISSIONS FROM OFF-ROAD EQUIPMENT							
YEAR	ACTIVITY	EQUIPMENT	NO.	HP	LOAD FACTOR ¹	TOTAL HRS	CO EMISSIONS (g)
2008	Geotech. investigation	Drill rig	1	100	0.43	80	11541
	Early site work	Articulated truck	2	325	0.59	640	186780
	Early site work	Compactor (soil)	1	100	0.43	40	6005
	Early site work	Hydraulic excavator (s)	1	100	0.59	40	9197
	Early site work	Hydraulic excavator (m)	1	200	0.59	80	11658
	Early site work	Hydraulic excavator (l)	2	400	0.59	640	273987
	Early site work	Wheel loader (l)	2	800	0.59	640	802627
	Early site work	Dozer (s)	1	80	0.59	40	7452
	Early site work	Dozer (m)	1	150	0.59	160	21523
	Early site work	Dozer (l)	1	580	0.59	160	107478
	Early site work	Concrete crusher	1	510	0.43	160	60036
	Tank construction	Compactor (stone/asphalt)	1	50	0.43	40	3002
	Tank construction	Hydraulic excavator (m)	1	200	0.59	160	23317
	Tank construction	Telehandler	2	100	0.21	600	99641
	Tank construction	Dozer (s)	1	80	0.59	80	14904
	Tank construction	Dozer (l)	1	580	0.59	80	53739
	Tank construction	Concrete truck	1500	100	0.59	750	192576
	Tank construction	Concrete pump	1	130	0.43	80	10017
	Gate house rehab	Hydraulic excavator (m)	1	200	0.59	160	23317
	Gate house rehab	Dozer (s)	1	80	0.59	160	29808
	Gate house rehab	Crane (hydraulic) (50t)	1	370	0.43	80	19665
TOTAL 2008 OFF-ROAD CONSTRUCTION EMISSIONS (g/year)							1968268
TOTAL 2008 OFF-ROAD CONSTRUCTION EMISSIONS (tons/year)							2.170

2009	Tank construction	Hydraulic excavator (m)	1	200	0.59	160	23109
	Tank construction	Telehandler	2	100	0.21	600	97852
	Tank construction	Wheel loader (m)	1	200	0.59	320	50900
	Tank construction	Crane (hydraulic) (500t)	1	680	0.43	320	161031
	Tank construction	Shot-crete pump trailer	1	100	0.43	160	22890
	Tank construction	Concrete truck	1500	100	0.59	750	187222
	Gate house rehab	Crane (hydraulic) (50t)	1	370	0.43	40	9247
TOTAL 2009 OFF-ROAD CONSTRUCTION EMISSIONS (g/year)							552250
TOTAL 2009 OFF-ROAD CONSTRUCTION EMISSIONS (tons/year)							0.609

TABLE A3 Continued

2010	Tank construction	Telehandler	1	100	0.21	200	32033
	Tank construction	Wheel loader (m)	1	200	0.59	320	49466
	Tank construction	Shot-crete pump trailer	1	100	0.43	160	22346
	Tank construction	Concrete truck	100	100	0.59	50	12154
	Final site work	Compactor (stone/asphalt)	1	50	0.43	40	2648
	Final site work	Paving equipment	1	100	0.59	40	9610
	Final site work	Dozer (s)	1	80	0.59	80	14708
	Final site work	Skid-Steer	1	75	0.21	40	4911
TOTAL 2010 OFF-ROAD CONSTRUCTION EMISSIONS (g/year)							147875
TOTAL 2010 OFF-ROAD CONSTRUCTION EMISSIONS (tons/year)							0.163

Notes:

1. Load factor is the fraction of rated horsepower at which the equipment typically operates over its duty cycle. Load factors were taken from *Median Life, Annual Activity, and Load Factor Values for Nonroad Engine Emissions Modeling* (EPA420-P-04-005)

TABLE A4

CONSTRUCTION EMISSIONS FROM ON-ROAD VEHICLES							
YEAR	ACTIVITY	EQUIPMENT ¹	NO.	VEHICLE CLASS	MILES PER VEHICLE	TOTAL MILES	CO EMISSIONS (g)
2008	Early site work	Heavy Truck	2	HDDV8b	1000	2000	5220
	Early site work	Light Diesel Truck	2	LDDT12	3000	6000	5160
	Early site work	Light Gas Truck	5	LDGT2	3000	15000	286950
	Early site work	Passenger car	5	LDGV	3000	15000	261300
	Gate house rehab	Concrete Truck	1	HDDV8a	20	20	51
	Gate house rehab	Heavy Truck	6	HDDV8b	100	600	1566
	Gate house rehab	Heavy Truck	10	HDDV8b	250	2,500	6525
	Gate house rehab	Light Diesel Truck	1	LDDT12	4000	4000	3440
	Gate house rehab	Light Gas Truck	6	LDGT2	4000	24000	459120
	Geotech Investigation	Heavy Truck	1	HDDV8b	80	80	209
	Geotech Investigation	Light Gas Truck	2	LDGT2	400	800	15304
	Project management	Light Gas Truck	2	LDGT2	4000	8000	153040
	Project management	Passenger car	2	LDGV	4000	8000	139360
	Site survey	Light Gas Truck	2	LDGT2	375	750	14348
	Tank construction	Truck-mounted pump	1	HDDV6	100	100	110
	Tank construction	Dump Truck	50	HDDV7	25	1250	1638
	Tank construction	Concrete Truck	1500	HDDV8a	20	30,000	76800
	Tank construction	Heavy Truck	1	HDDV8b	1000	1000	2610
	Tank construction	Heavy Truck	100	HDDV8b	100	10000	26100
	Tank construction	Light Diesel Truck	2	LDDT12	4000	8000	6880
	Tank construction	Light Gas Truck	10	LDGT2	4000	40000	765200
	Tank construction	Passenger car	10	LDGV	4000	40000	696800
TOTAL 2008 ON-ROAD CONSTRUCTION EMISSIONS (g/year)							2927730
TOTAL 2008 ON-ROAD CONSTRUCTION EMISSIONS (tons/year)							3.227
TABLE A4 Continued							
2009	Site survey	Light Gas Truck	1	LDGT2	500	500	9020
	Tank construction	Passenger car	10	LDGV	4,000	40,000	662000
	Tank construction	Light Gas Truck	10	LDGT2	4,000	40,000	721600
	Tank construction	Light Diesel Truck	2	LDDT12	4,000	8,000	6560
	Tank construction	Concrete Truck	1500	HDDV8a	20	30,000	69000
	Tank construction	Heavy Truck	2	HDDV8b	1,000	2,000	4700
	Tank construction ²	Heavy Truck	50	HDDV8b	200	10,000	23500
	Gate house rehab	Light Gas Truck	6	LDGT2	4,000	24,000	432960
	Gate house rehab	Light Diesel Truck	1	LDDT12	4,000	4,000	3280
	Gate house rehab	Concrete Truck	1	HDDV8a	20	20	46
	Gate house rehab	Heavy Truck	6	HDDV8b	100	600	1410
	Gate house rehab	Heavy Truck	10	HDDV8b	250	2,500	5875
	Project management	Passenger car	2	LDGV	4,000	8,000	132400
	Project management	Light Gas Truck	2	LDGT2	4,000	8,000	144320
TOTAL 2009 ON-ROAD CONSTRUCTION EMISSIONS (g/year)							2216671
TOTAL 2009 ON-ROAD CONSTRUCTION EMISSIONS (tons/year)							2.443
2010	Site survey	Light Gas Truck	1	LDGT2	500	500	8300

Tank construction	Passenger car	5	LDGV	1,600	8,000	124400
Tank construction	Light Gas Truck	5	LDGT2	1,600	8,000	132800
Tank construction	Light Diesel Truck	2	LDDT12	1,600	3,200	2496
Tank construction	Concrete Truck	100	HDDV8a	20	2,000	4120
Tank construction	Heavy Truck	1	HDDV8b	500	500	1050
Gate house rehab	Light Gas Truck	6	LDGT2	4,000	24,000	398400
Gate house rehab	Light Diesel Truck	1	LDDT12	4,000	4,000	3120
Final site work	Light Gas Truck	6	LDGT2	400	2,400	39840
Final site work	Light Diesel Truck	1	LDDT12	400	400	312
Final site work	Dump Truck	50	HDDV7	20	1000	1060
Final site work	Heavy Truck	3	HDDV8b	100	300	630
Start-up	Light Gas Truck	2	LDGT2	500	1,000	16600
Project management	Passenger car	1	LDGV	2,000	2,000	31100
Project management	Light Gas Truck	2	LDGT2	400	800	13280
TOTAL 2010 ON-ROAD CONSTRUCTION EMISSIONS (g/year)						777508
TOTAL 2010 ON-ROAD CONSTRUCTION EMISSIONS (tons/year)						0.857

Notes:

1. LVW for LDGTs assumed to exceed 3750 lbs.
2. Data submitted for total miles (10000) does not agree with values per vehicle. The total miles reported (the larger value) was used for these calculations.